

**What is Claimed is:**

1. A method for fabricating close spaced mirror arrays on a semiconductor crystal substrate where a mask is used for etching comprising the following steps:
  - providing a said substrate oriented with the  $\langle 100 \rangle$  surface horizontal for placement of said mask over it and having an alignment feature on the perpendicular  $\langle 110 \rangle$  crystal plane;
  - providing a mask with perpendicular cross arms and a diamond centered on said cross arms the centers of said diamonds lying on a line offset from said  $\langle 110 \rangle$  plane by 45 degrees when said mask is placed in said etching position;
  - doing an etch to provide an array of membranes for steerable mirrors with each mirror membrane being defined by an octagon with four sides being a vertical etch back on the  $\langle 100 \rangle$  plane and the alternating other four sides being defined by a  $\langle 111 \rangle$  axis seeking etch.
2. A method as in Claim 1 where said cross arms define the  $\langle 111 \rangle$  etch planes and said diamonds the lateral undercut  $\langle 100 \rangle$  planes.
3. A method as in claim 1 where said etch uses potassium hydroxide (KOH) as an etchant.